

## **REMARKS**

### **Introductory Comments**

Claims 1, 4-14, 17-26, 29-31, and 35-42 were previously pending in the application. Claims 39-42 are canceled, and claims 1, 14, 26, and 31 are amended herein. Assuming the entry of this amendment, claims 1, 4-14, 17-26, 29-31, and 35-38 are now pending in the application. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

Support for the amendment of claims 1, 14, 26, and 31 can be found, e.g., in previously presented claims 39-42 (now canceled).

### **Rejections under 35 U.S.C. § 103**

*In paragraph 6, the Examiner rejected claims 1, 4, 10-11, 14, 17, 23, 26-27, 29, 31, and 35-42 under 35 U.S.C. § 103(a) as being unpatentable over Ngo in view of IEEE. In paragraph 7, the Examiner rejected claims 5, 18, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Ngo in view of IEEE and Chaddha. In paragraph 8, the Examiner rejected claims 6, 12-13, 19, and 24-25 under 35 U.S.C. § 103(a) as being unpatentable over Ngo in view of IEEE and Eshet. In paragraph 9, the Examiner rejected claims 7, 9, 20, and 22 under 35 U.S.C. § 103(a) as being unpatentable over Ngo in view of IEEE, Eshet, and Balachandran. In paragraph 10, the Examiner rejected claims 8 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Ngo in view of IEEE, Eshet, Balachandran, and Li.*

### **Claim 1**

Amended claim 1 is equivalent to previously pending claim 39 rewritten in independent form. As amended, claim 1 specifies that the step of assigning priority to each of the two or more sub-streams comprises:

assigning to the base sub-stream a QoS parameter set corresponding to a voice access category of the IEEE 802.11e standard;

assigning to a first enhancement sub-stream a QoS parameter set corresponding to a video access category of the IEEE 802.11e standard;

if there is a second enhancement sub-stream, then assigning to the second enhancement sub-stream a QoS parameter set corresponding to a video probe access category of the IEEE 802.11e standard; and

if there is a third enhancement sub-stream, then assigning to the third enhancement sub-stream a QoS parameter set corresponding to a best effort access category of the IEEE 802.11e standard.

In the rejection of previously pending claim 39, on pages 18-19 of the Office action, the Examiner cites and relies on Ngo's FIG. 2 and IEEE's Annex D, lines 17-18, and section 9.1.3.1. The rejection of previously pending claim 1, which was the base claim of claim 39, cites and relies on IEEE sections 3.52, 3.67, 3.75, 6.1.1.1, 7.3.2.14, and 9.1.3.1.

In the description of FIG. 2, in col. 5, lines 50-55, Ngo teaches that:

Layered source encoder 210 receives the input video signal and encodes the input video signal into a base layer and up to N enhancement layers. The base layer has

the highest priority level and enhancement layer 1 has the **next highest priority** level. Enhancement layer N has the lowest priority level. [Emphasis added.]

Thus, Ngo suggests that priority levels are assigned to the base and enhancement layers in a consecutive order, wherein the base layer has the highest priority and each added enhancement layer is assigned the next available highest priority.

In col. 6, lines 5-6, Ngo further teaches that:

Variable physical mode transmitter 230, operating under the control of transmitter mode controller 240, modulates each layer of the data stream from multiplexer 220 according to the physical mode selected by transmitter mode controller 240. The physical mode for each layer is determined by the priority level of the respective layer.

It is clear from this passage that Ngo teaches direct mapping of a priority level onto a physical mode of the transmitter, and the concept of “access category” is not present in the cited teachings of Ngo.

The Examiner alleges that the latter deficiency of Ngo with respect to claim 1 is rectified by IEEE. However, for the following reasons, the Applicant submits that this allegation is not supported by the cited teachings and constitutes a clear substantive error.

IEEE’s section 3.52 defines an “access category (AC)” as:

An enhanced variant of the DCF that contends for TXOPs using one set of EDCF channel access parameters from the QoS Parameter Set element in the beacon and Probe Response. Each QSTA shall have up to 8 ACs to support 8 user priorities.

IEEE’s Annex D, lines 17-18, contain a table that shows default values of certain MIB (management information base) parameters for the eight user priorities (UPs). The first column of the table also shows five AC designations corresponding to UP=0, 1, 2, 4, and 5, respectively. The table does not specify an AC designation for UP=3, 6, and 7.

Now, if one combines the above-quoted teachings of Ngo and IEEE, in the manner suggested by the Examiner in the Office action, one arrives at the following mapping of Ngo’s base and enhancement layers onto the IEEE’s ACs:

base layer:	unspecified AC (because the cited IEEE’s table has no AC specified for the highest user-priority value, i.e., UP=7);
1 <sup>st</sup> enhancement layer:	unspecified AC (because the cited IEEE’s table has no AC specified for the next highest user-priority value, i.e., UP=6);
2 <sup>nd</sup> enhancement layer:	voice AC (because the cited IEEE’s table specifies “voice” for the next highest user-priority value, i.e., UP=5); and
3 <sup>d</sup> enhancement layer:	video/interactive AC (because the cited IEEE’s table specifies “video/interactive” for the next highest user-priority value, i.e., UP=4).

Clearly, this AC assignment is very different from the AC assignment required by amended claim 1, which specifies that the base layer, the 1<sup>st</sup> enhancement layer, the 2<sup>nd</sup> enhancement layer, and the

3<sup>d</sup> enhancement layer are assigned to the voice AC, video AC, video probe AC, and best effort AC, respectively.

If the Examiner thought that the AC assignment required by amended claim 1 is obvious over the AC assignment suggested by the combination of Ngo and IEEE, then the Examiner should have provided “clear articulation of the reason(s) why the claimed invention would have been obvious [without resorting to] mere conclusory statements, [but] instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness,” as explicitly required by MPEP § 2141(III). However, the required “articulated reasoning” directed at explaining away the above-articulated discrepancy between the AC assignment suggested by the combination of Ngo and IEEE and the AC assignment required by amended claim 1 is absent in the current claim rejection. It is submitted that the reasoning provided by the Examiner in the first full paragraph at page 5 of the Office action is legally insufficient, e.g., because it does not address the limitations of previously pending claim 39 at all. For further guidance on the obviousness-type rejections, the Examiner is encouraged to consult the following most-recent authority: “Examination Guidelines Update: Developments in the Obviousness Inquiry after KSR v. Teleflex,” Federal Register, Vol. 75, No. 169, Wednesday, September 1, 2010, pages 53643-53660.

To summarize, the Examiner erred in the rejection of previously pending claim 39 (now amended claim 1) because:

- (1) the combination of Ngo and IEEE, as applied in the Office action, does not explicitly teach or fairly suggest an example of the above-quoted limitations of claim 39, notwithstanding the Examiner’s assertion to the contrary; and
- (2) the rejection fails to provide a reasoned explanation of the legal conclusion of obviousness as required by MPEP § 2141(III).

For all these reasons, the Applicant submits that the rejection of previously pending claim 39 is improper and should be withdrawn and that amended claim 1 is non-obvious over Ngo and IEEE.

#### Claims 4-14, 17-26, 29-31, and 35-38

The Applicant respectfully submits that each of amended claims 14, 26, and 31 is non-obvious over the cited references for at least some of the reasons presented above in overcoming the rejection of amended claim 1. It is further submitted that claims 4-13, 17-25, 29-30, and 35-38 are non-obvious over the art, as applied in the Office action, at least by their dependence from one of non-obvious claims 1, 14, 26, and 31.

#### Conclusion

In view of the above amendments and remarks, the Applicant believes that all pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

#### Fees

During the pendency of this application, the Commissioner for Patents is hereby authorized to charge payment of any filing fees for presentation of extra claims under 37 CFR 1.16 and any patent application processing fees under 37 CFR 1.17 or credit any overpayment to **Mendelsohn, Drucker, & Associates, P.C. Deposit Account No. 50-0782**.

The Commissioner for Patents is hereby authorized to treat any concurrent or future reply, requiring a petition for extension of time under 37 CFR § 1.136 for its timely submission, as incorporating a petition for extension of time for the appropriate length of time if not submitted with the reply.

Respectfully submitted,

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Customer No. 46900

Mendelsohn, Drucker, & Associates, P.C.  
1500 John F. Kennedy Blvd., Suite 405  
Philadelphia, Pennsylvania 19102

/Yuri Gruzdov/

Yuri Gruzdov

Registration No. 50,762  
Attorney for Applicant  
(215) 557-8544 (phone)  
(215) 557-8477 (fax)